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## What is IoT?

The Internet of things (IoT) is the extension of Internet connectivity into physical devices and everyday objects. Embedded with electronics, Internet connectivity, and other forms of hardware (such as sensors), these devices can communicate and interact with others over the Internet, and they can be remotely monitored and controlled. The Internet of Things is predicted to revolutionize the way in which we live our lives, with many industry experts tipping it to have the biggest technological impact since cloud computing, as more data than ever before can be collected, stored and analyzed.

## About Ronika

“Ertebat Sanat Ronika Pars” company was established to develop and commercialize IoT ideas using LoRaWAN technology and other networking protocols in December 2018. Ronika is a team of experts in electronics, telecommunication, computer and management that aims to develop the IoT-based platforms. All the team's focus is on optimizing, improving quality and performance, and increasing the assurance level of IoT-based systems.



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## Work Units

### 1

#### Software Engineering

Back-end (server and security), Front-end (application and website)



### 2

#### Hardware Engineering

Embedded programming / PCB design



### 3

#### Industrial Design

The creative act of determining and defining a product's form and features takes place in advance of the physical act of making a product, which consists purely of repeated, often automated, replication; its key characteristic is that design is separated from manufacture.



### 4

#### Business Development

It is the creation of long-term value for the company from customers, markets, and relationships which serves companies such as Ronika with the purpose of developing the business in some way.





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## Fields of Activity

### Design and Construction

Design and construction of related products to IoT industry with the approach of developing the required infrastructure with the highest quality and in accordance with international standards

### Technical Support and After-Sales Services

Continuous communication with customers and feedback on system performance, technical support and equipment provision, software updates and long-term aftersales services.

### Implementation

We develop, implement and manage innovative IoT solutions. Tailor-made, from sensor to interface; we make sure your IoT delivers what you need.

### Consultation

specialized advice on network design, network security, service quality and implementation of various public and private networks based on the Internet.

### Education

Providing educational service package on internet of things technology that includes necessary equipment to test and set up a private network based on IoT with educational purposes.



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## Design and Construction

### **1) Infrastructure (Gateway / Server):**

Service quality assurance using the best hardware design techniques in in the design and construction of the gateway and the best and latest software packages in the design and implementation of server packages and product's special applications.

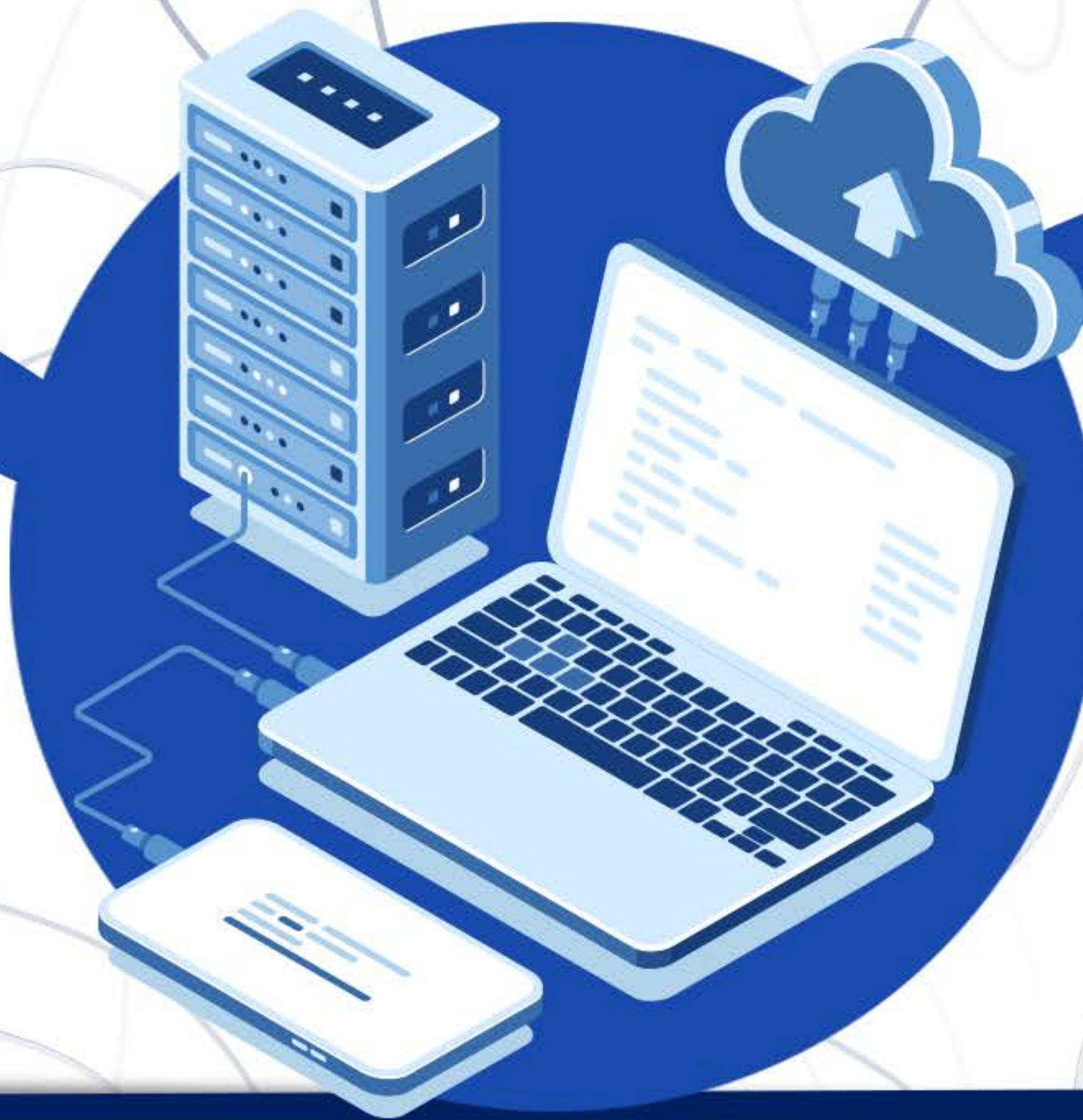
### **2) Products:**

Design, Manufacture and Develop IoT related products considering customers and users' requirements.



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## Application & Server



WE ARE ALSO IMPROVING THE PRODUCT RELATED SERVICES, AND MANUFACTURING VARIOUS PRODUCTS TO COVER THE GROWING NEEDS OF THE GLOBAL IOT INDUSTRY

### SERVER

THE IOT SERVERS HAVE DIFFERENT PURPOSES, LIKE ADMINISTRATION, MONITORING, DATA GATHERING AND ANALYSIS. THEY ARE COMPLETELY MODULAR, BASED ON OPEN-SOURCE ENTERPRISE PLATFORMS THAT PROVIDE THE CAPABILITIES THAT ARE NEEDED FOR THE SERVER-SIDE OF THE IOT ARCHITECTURE, TO CONNECT TO DEVICES

### APPLICATION

THIS IS THE LEVEL OF THE IOT THAT YOU WOULD FOCUS ON AS AN APP DEVELOPER. THE END USER NEEDS A WAY TO INTERACT WITH THE IOT PRODUCTS AND RECEIVE DATA, TYPICALLY A MOBILE OR A WEB APP

### OUR SERVICES OFFER FOLLOWING FEATURES

EXTENSIBILITY • SYNCHRONIZATION • OPEN API FOR EASY INTEGRATION • MODULARITY • SECURITY



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## Products



**The Smart Water** platform with a variety of soft ware and hardware capabilities, can measure water quality parameters in rivers, natural lakes and lakes behind dams, seas and reservoirs of drinking water and can be used as a system that Monitors the amount and quality of water used in residential units.

### Sensors:

- ph Sensor
- Oxidation-Reduction Potential (ORP)
- Dissolve Oxygen (DO)
- Conductivity Sensor
- Temperature Sensor
- Turbidity Sensor
- Ion Sensors Such as Ammonium, Nitrite and ...

### Features:

- Internal Battery with high durability
- Battery Connectivity and Solar Charging
- Easy Installation
- High quality body and completely Waterproof and Dustproof



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## Products



**The Smart City** platform is capable of detecting and calculating the air quality index, atmospheric pollutants and environmental noise, and it is used in urban studies and smart city management. This system is able to detect air quality parameters accurately by using various sensors. Also, it is possible to measure noise index in urban areas by using an environmental sound monitoring section.

### Sensors:

- Sound pollution measurement sensor
- Motion detector sensor
- Traffic sensor
- Temperature sensor
- Humidity sensor
- Rain sensor
- Smoke, Fire and Gas sensor
- Atmospheric pollutants sensor
- Dust sensor

### Features:

- Internal battery with high durability
- Battery Connectivity and Solar Charging system
- Easy Installation
- High quality body and totally Waterproof and Dustproof



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## Products



**The Smart Agriculture** platform is capable of measuring and monitoring soil moisture, soil and water temperature, and other effective parameters in growing agricultural crops by using various sensors and accurate measurement systems available in this product.

### Sensors:

- Soil moisture sensor
- Soil temperature sensor
- Humidity sensor
- Solar and Ultraviolet Radiations sensors
- Pressure sensor
- Wind Direction and Velocity sensor
- Air temperature sensor
- Rain sensor
- Tank level sensor
- Flow Meter sensor

### Features:

- Internal battery with high durability
- Battery Connectivity and Solar Charging system
- Easy Installation
- High quality body and totally Waterproof and Dustproof



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## Products



The **Smart Security** platform enables any smart building or location to recognize motion, detect heat, smoke and fire, and control enter and exit doors. This is available by using various connectivity sensors .

### Sensors:

- Motion Detector sensor
- Light intensity sensor
- Methane, Butane and Propane sensor
- Smoke sensor
- Fire sensor
- Door Detector sensor
- Voice Detector sensor

### Features:

- Internal battery with high durability
- Battery Connectivity and Solar Charging system
- Easy Installation
- High quality body and totally Waterproof and Dustproof



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## Products



The **Smart Waste** platform is able to detect the fullness of garbage bins around the city, and a suitable management can be provided to improve the recycling or landfill of urban waste.

### Sensors:

- Surface Detector (In order to calculate the fullness of garbage bins)
- Internal temperature sensor
- Battery life sensor

### Features :

- Easy installation and use
- High durable battery
- Waterproof and Dustproof body



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## Products



The Smart Fleet platform enables shipping and taxi companies and co-operatives to track fleets and monitor the precise implementation of the operating instructions. This system measures and analyzes the position, velocity and route of the fleet Using GPS and GLONASS international positioning systems, and sends additional information using various communication platforms to the system's special applications. This system is also operational inside of the building and uses internal battery and wireless charging system .

### Sensors :

- Accelerometer and Gyroscope sensor
- Box Opening Detector sensor
- Internal temperature sensor
- Moisture Penetration Detection sensor
- Battery life sensor

### Features :

- Rechargeable internal battery
- Wireless charging
- High resistance against impact and water and dust penetration
- Communication capabilities (LoRaWAN, SigFox, LTE, BLE and NFC)
- Indoor and Outdoor positioning
- Easy usage



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## Products



**The Smart Environment** platform is capable of measuring the air quality index in ppm scale by using multiple available sensors.

### Sensors:

- Accelerometer and Gyroscope sensor
- Box Opening Detector sensor
- Internal temperature sensor
- Moisture Penetration Detection sensor
- Battery life sensor

### Features:

- Rechargeable internal battery
- Wireless charging
- High resistance against impact and water and dust penetration
- Communication capabilities (LoRaWAN, SigFox, LTE, BLE and NFC)
- Indoor and Outdoor positioning
- Easy usage



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## Products



**The Smart Building** platform is capable of improving air conditioning systems' performance, increasing cooling and heating systems' efficiency by using multiple connectivity sensors in the buildings.

### Sensors:

- Accelerometer and Gyroscope sensor
- Box Opening Detector sensor
- Internal temperature sensor
- Moisture Penetration Detection sensor
- Battery life sensor

### Features:

- Rechargeable internal battery
- Wireless charging
- High resistance against impact and water and dust penetration
- Communication capabilities (LoRaWAN, SigFox, LTE, BLE and NFC)
- Indoor and Outdoor positioning
- Easy usage